

ABSTRACT

Photoactivatable water borne coating composition comprising

- a) a (meth)acryloyl-functional polyurethane dispersion, with the (meth)acryloyl-functional polyurethane comprising 5 to 18 wt.% of alkylene oxide groups while the (meth)acryloyl functionality is in the range of 2 to 40, and
- b) a UV-initiator.

Preferably, the (meth)acryloyl-functional polyurethane comprises 8 to 18 wt.% of alkylene oxide groups. More preferably, the coating composition comprises a reactive diluent.

The (meth)acryloyl-functional polyurethane is obtainable by reaction of:

- a) at least one organic polyisocyanate,
- b) optionally, at least one organic compound containing at least two isocyanate-reactive groups and having a number average molecular weight in the range of 400 to 6,000,
- c) at least one isocyanate-reactive and/or isocyanate-functional compound bearing non-ionic dispersing groups,
- d) at least one isocyanate-reactive (meth)acryloyl-functional compound,
- e) optionally, at least one active hydrogen-containing chain extender, and
- f) optionally, at least one active hydrogen-containing compound bearing ionic groups.

The water borne coating composition is especially suitable for application as a clear coat.